

# Expedited Partner Therapy: What is it, how can we use it, and does it work?



Kerry Gannon-Loew, MD  
Adolescent Medicine Fellow



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# Objectives

- To review current literature on the effectiveness of expedited partner therapy (EPT) as a partner treatment method
- To understand the current guidelines for the use of EPT and the legal status in the state of Ohio
- To discuss EPT implementation at Nationwide Children's Hospital including process, effectiveness, and barriers

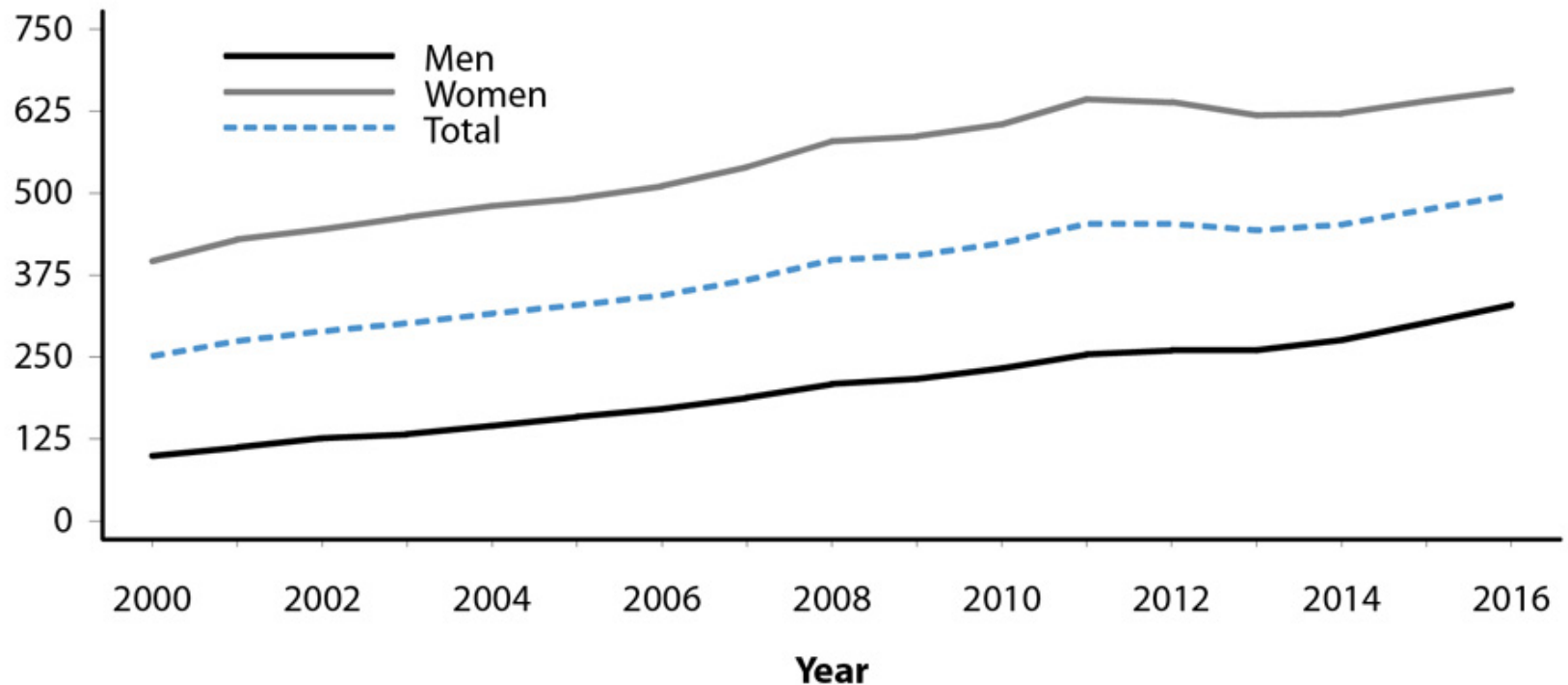
# Background

- Chlamydia, gonorrhea and trichomonas are commonly seen in primary care and sexually transmitted infection (STI) clinics.
- Rates of chlamydia and gonorrhea are on the rise, while rates of trichomonas appear fairly stable over time.

# U.S. Chlamydia incidence

- From 2015 to 2016, Chlamydia incidence increased by 4.7%, from 475.0 to 497.3 cases per 100,000.

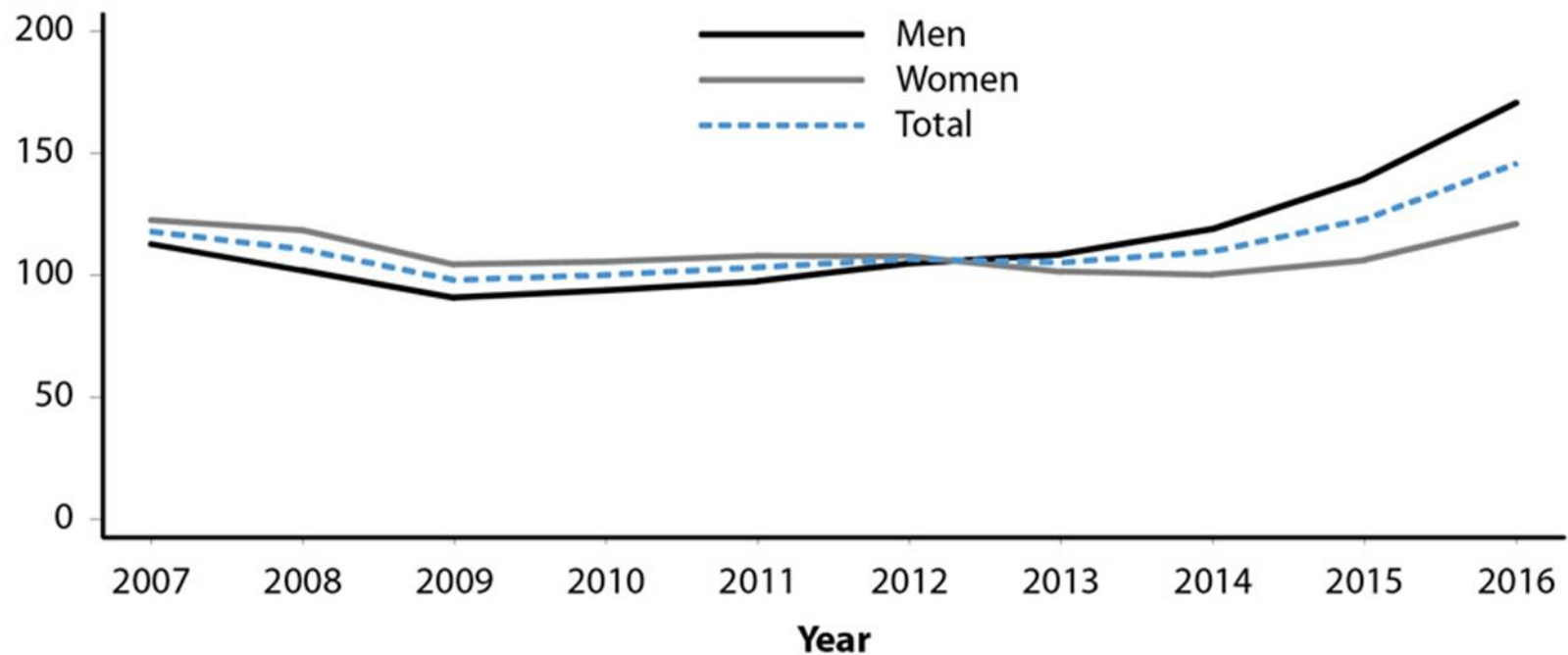
Rate (per 100,000 population)



# U.S. Gonorrhea incidence

- From 2015 to 2016, the Gonorrhea incidence increased from 123 to 145.8 cases per 100,000.

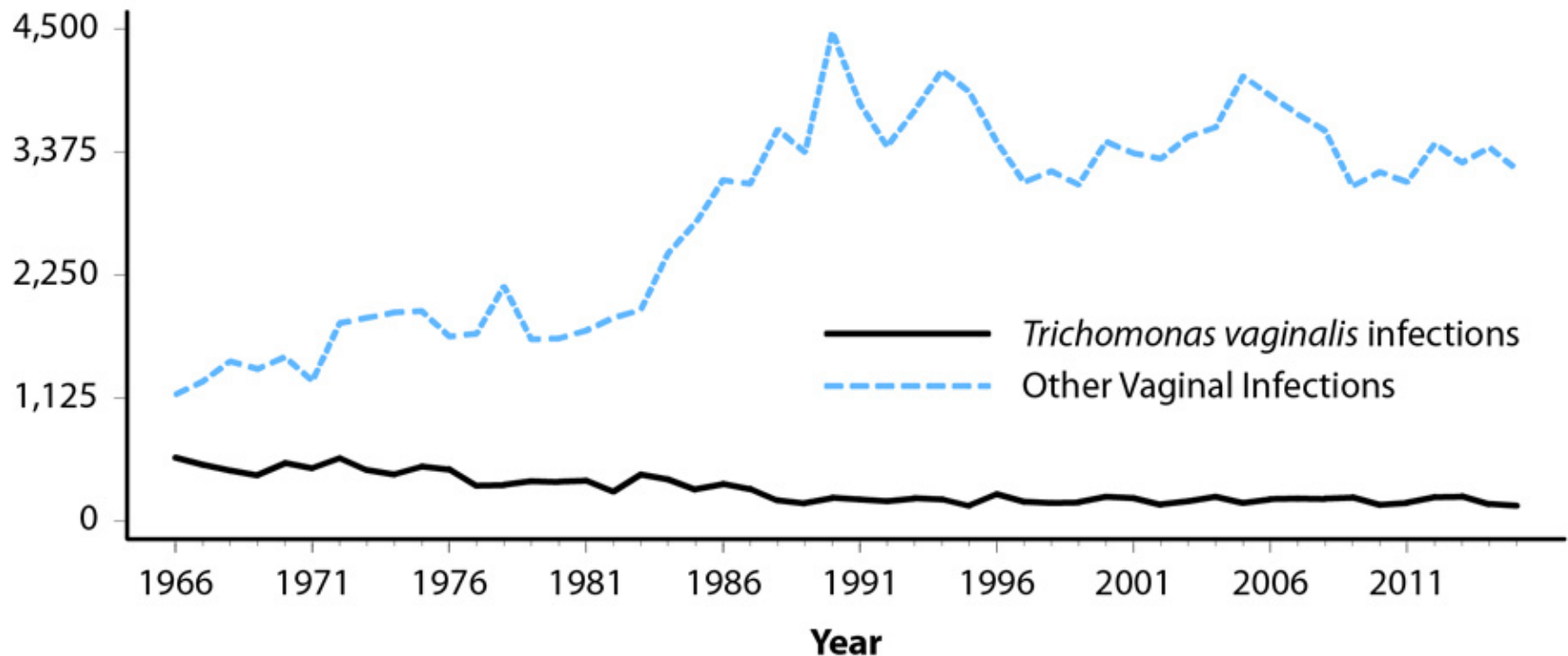
Rate (per 100,000 population)



# U.S. Trichomonas incidence

- As *Trichomonas* is not a reportable STI, data is limited to initial physician office visits from the National Disease & Therapeutic Index.

Visits (in thousands)



# Reinfection

- Individuals who have a STI one time are at high risk for becoming re-infected with the same STI.
  - CDC recommends re-testing at 3 months for re-infection
- In a 2009 systematic review, 14% of females were re-infected with Chlamydia and 12% were re-infected with Gonorrhea.<sup>2</sup>
- Adolescents and young adults at high risk for reinfection
  - Up to 26% of adolescents and young adult women are re-infected with Chlamydia within twelve months of initial infection.<sup>3-6</sup>

# Partner Notification

- Traditional method
  - A patient diagnosed with a STI notifies his/her partner(s) and instructs them to get testing/treatment.
- Expedited partner therapy (EPT)
  - STI treatment is provided to a patient's sexual partner(s) without a medical examination or prevention counseling.
  - Patient-delivered partner therapy
    - Provider gives medication or a prescription to the infected patient who delivers the treatment to the exposed partner.



# What the research shows

- 4 large CDC-sponsored randomized controlled trials

## 1. Chlamydia in female patients<sup>7</sup>

- 1787 women ages 14-34 years
- Patients randomized to EPT or self referral
- Patients re-tested at one and four months (80%)
- 12% re-infected in EPT group versus 15% in self-referral group
  - 20% decrease in reinfection ( $p=0.102$ )

# What the research shows

## 2. Women and heterosexual men with Chlamydia and Gonorrhea<sup>8</sup>

- 2751 males and females with mean age 23 years
- Randomized to EPT versus self referral
- 68% presented for retesting
- Chlamydia: 11% re-infected in EPT group compared with 13% in self referral ( $p=0.17$ )
- Gonorrhea: 3% re-infected in EPT group compared with 11% in self referral ( $p<0.01$ )

# What the research shows

## 3. Males with urethritis<sup>9</sup>

- 977 males ages 16-44 years diagnosed with gonococcal urethritis or non-gonococcal urethritis
- Randomized to EPT, booklet-enhanced partner referral, standard partner referral
- Only 38% presented for tests of reinfection
- Rate of reinfection: EPT (23%), booklet-enhanced partner referral (14%) and standard referral (42%) ( $p < 0.001$ )

# What the research shows

## 4. Trichomonas<sup>10</sup>

- 463 women diagnosed with Trichomonas
  - Randomized to EPT, booklet-enhanced partner referral or standard referral
  - 81% presented for retesting
  - Reinfection rate: EPT group (9%), booklet-enhanced partner referral (9%) and standard referral (6%) ( $p=0.64$ )
- 
- Additional RCTs and meta-analyses demonstrate similar results
    - EPT results in equivalent to slightly improved rates of reinfection when compared to standard partner referral.<sup>11</sup>

# Research in adolescents

- Studies in adolescents and young adults are limited despite being a high risk population
  - Sub-analysis of the trial on EPT for Chlamydia in women
    - Among 700 14-19 year old females, reinfection rate was not significantly different in the EPT group compared to standard referral ( $p=0.09$ ).<sup>7</sup>
  - Retrospective chart review of 150 adolescents with Chlamydia
    - 40% received EPT
    - No significant difference between those who received EPT and those who did not<sup>12</sup>

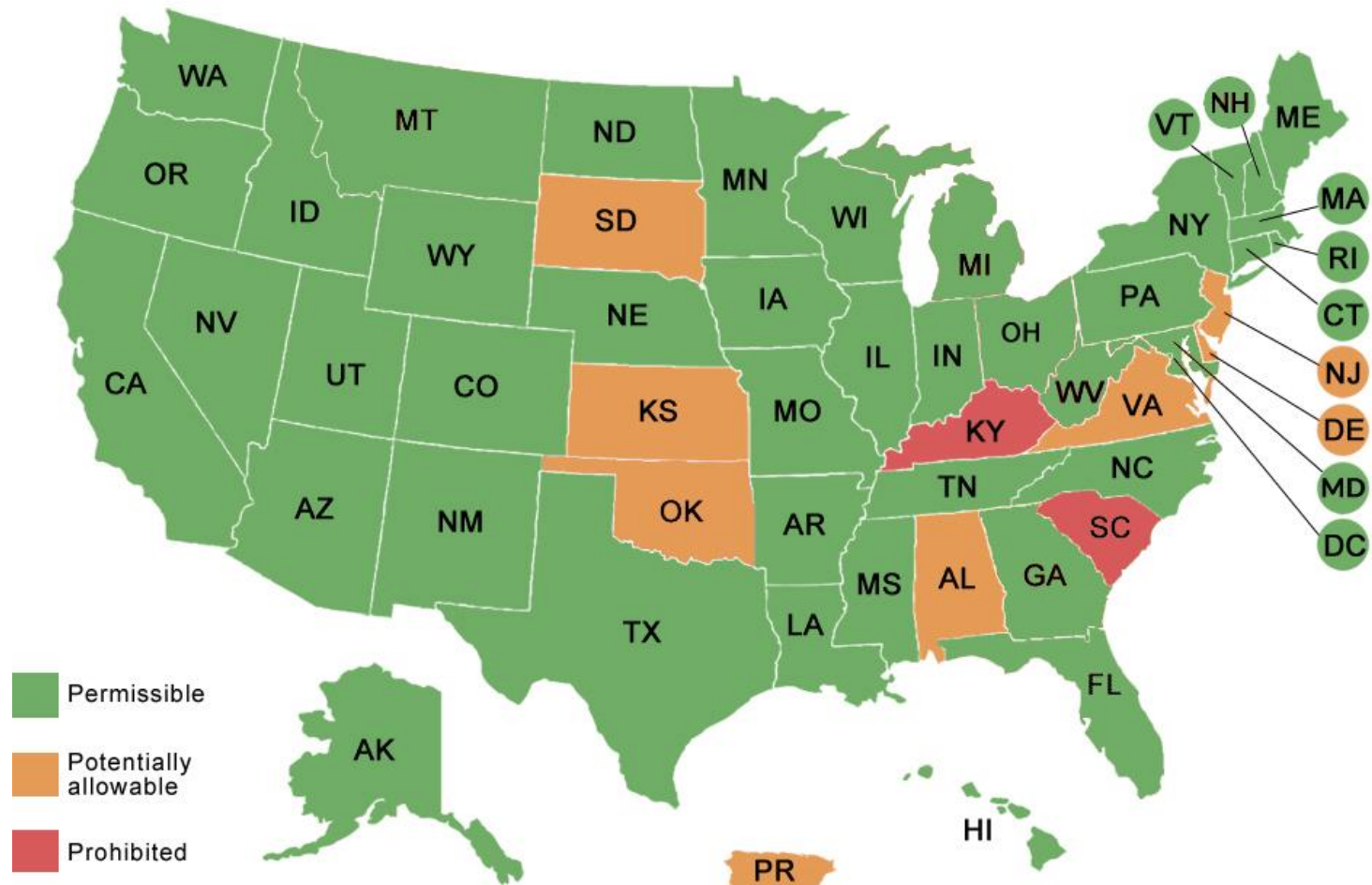
# Guidelines

- 2006 CDC Statement on EPT<sup>13</sup>
  - Offer EPT to women and heterosexual men with Chlamydia or Gonorrhea when other treatment methods are impractical or unsuccessful
  - Should be used selectively in men who have sex with men or women with Trichomonas
    - Concern for co-infection & lack of sufficient evidence
- EPT is supported by<sup>14-16</sup>
  - American College of Obstetricians and Gynecologists
  - Society for Adolescent Health and Medicine
  - American Academy of Family Physicians

# Provider Knowledge of EPT

- Practice varies widely
  - National survey of physicians (N=3011)<sup>17</sup>
    - 50% ever used EPT
    - Up to 14% used it regularly
  - Interviews of 23 providers<sup>18</sup>
    - All believed EPT was beneficial
    - Seven used it routinely
    - Many reported limited knowledge about the legal status
  - Among providers treating adolescents, only 20% used EPT<sup>19</sup>
- Providers concerns include:<sup>20</sup>
  - Providing incomplete care
  - Causing adverse reactions in the partner

# Legal Status<sup>21</sup>





# Ohio Law - House Bill 124

- Legalized the use of EPT in Ohio on March 23, 2016
- Providers may prescribe or dispense medication for treatment of Gonorrhea, Chlamydia or Trichomonas
- Use when the patient reports his/her partner is unable or unlikely to be seen by a health professional

# Ohio Law

- May dispense medication or write a prescription for treatment of up to 2 sexual partners
- Partner must be given information on the diagnosis and treatment
- Must document that EPT was given

# Implementing EPT

- Designed a standardized protocol to offer EPT at Nationwide Children's Adolescent Medicine Clinic.
- The protocol went into effect in May 2016, shortly after EPT legalization.
- Designed to offer EPT to every patient with a positive Chlamydia or Trichomonas test
  - Did not offer EPT for Gonorrhea because the standard of care for treatment is Intramuscular Ceftriaxone

# NCH's EPT Protocol

- A standardized script was used to explain EPT to patients
  - If patient accepts EPT, written prescription is provided
  - Handout for partner explains the STI and treatment
  - Prescription and handout can be picked-up or mailed
- Per CDC guidelines, all patients are tested for re-infection at 3 months



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**Helping Hand™**

**Expedited Partner Therapy (EPT): Trichomoniasis**  
***URGENT and PRIVATE***  
***IMPORTANT INFORMATION ABOUT YOUR HEALTH***

You have received this handout because your partner was diagnosed with a sexually transmitted infection (STI) called Trichomoniasis. This infection can be cured with treatment. Because your partner has been diagnosed with this infection, you also may be infected. Your partner has been evaluated by a healthcare provider and received treatment. It is very important that you are treated as well.

Your partner gave you a prescription to treat this infection. A healthcare provider has written this prescription for you. Please read all the information in this handout before taking the medicine. In particular, read the information about the medication called metronidazole (met roh NIE dah zol). After reading the information, fill the prescription and take all the medicine. You should also see a healthcare provider to be evaluated.

# Study of EPT in Adolescents

- Objective: Does implementation of an EPT protocol lower the reinfection rate among adolescents in our clinic?
- Main outcomes
  - Reinfection rate before and after implementation EPT protocol
  - Reinfection rate between patients who accepted EPT and those who did not

# Results: Pre-EPT Cohort

- Prior to implementation of EPT:
  - Three year retrospective chart review (11/2012-11/2015)
    - 511 Chlamydia infections and 182 Trichomonas infections
  - Approximately 50% of patients returned for tests of reinfection between 1-6 months after initial infection.
- Among those who had tests of reinfection:
  - 23% were positive again for Chlamydia
  - 18% were positive again for Trichomoniasis

# Results: Post-EPT Cohort

- One year study of EPT protocol (5/2016-5/2017)
  - 175 Chlamydia infections and 81 Trichomonas infections
- Offering EPT
  - 68% of those eligible were offered EPT
- EPT Acceptance
  - Of those offered, 24% accepted EPT for their partners
- Testing for reinfection
  - 70% of patients with Chlamydia or Trichomonas presented for a test of reinfection



# Chlamydia Reinfection Rates

- Accepted vs. Did Not Accept EPT
  - The reinfection rate was significantly lower among those who accepted EPT compared to those who did not accept EPT.
  - 4.6% versus 22.0%,  $p=0.048$
- Pre-EPT vs. Post-EPT Reinfection Rate
  - The overall clinic reinfection rate decreased from the Pre-EPT to the Post-EPT cohort, but not significantly.
  - 22.7% versus 17.9%,  $p=0.290$

# Trichomonas Reinfection Rates

- Accepted vs. Did Not Accept EPT
  - The reinfection rate was lower among those who accepted EPT compared to those who did not, but not significantly.
  - 10.0% versus 18.5%,  $p=0.15$
- Pre-EPT vs. Post-EPT Reinfection Rate
  - The overall clinic reinfection rate for Trichomonas did not significantly change between the Pre-EPT and Post-EPT cohorts.
  - 18.4% versus 16.7%,  $p=0.85$

# Barriers

- Implementation
  - Pharmacy logistics
  - Training nurses, residents, providers about the protocol
- Acceptance
  - Patient no longer in contact with partner
  - Patient unwilling to disclose diagnosis to partner
  - Stigma associated with diagnosis
  - New and unfamiliar method
  - Cost of prescription
  - Partner seeks testing/treatment on own (what we ideally want!)

# Next steps in our clinic

- Continue training and educating our staff
  - Goal – Offer EPT to 100% of eligible patients
- Address patient barriers to acceptance
  - Increase patient education
  - Consider dispensing medication in clinic to reduce financial barrier of filling prescription

# Summary and Conclusions

- EPT allows providers to treat sexual partners without an examination, reducing barriers to partner treatment.
- It may be an effective partner treatment strategy in certain circumstances and for certain patient populations.
- Our work at Nationwide Children's demonstrates that EPT can be successfully introduced into a busy clinic and potentially decrease reinfection rates for STIs.

# Questions

- ???

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